

**STUDY TOUR OF ATAL TUNNEL UNDER THE AICTE YOUTH UNDERTAKING VISIT FOR  
ACQUIRING KNOWLEDGE (YUVAK) SCHEME**

**REPORT**

<b>I</b>	Date of Visit to Atal Tunnel:	<b>01.12.2021</b>
	Period of the Study Tour:	<b>30.11.2021 to 03.12.2021</b>
	Name of Institute	<b>BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT- BENGALURU- 560 064</b>
	Institute PID	<b>1-4152591</b>
	Institute Address	<b>BMS Institute of Technology &amp; Management, Doddaballapur Main Road, Avalahalli, Yelahanka, Bengaluru-560064</b>
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<b>DETAILS OF FACULTY MEMBER GOING AS TEAM LEADER</b>					
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<b>DETAILS OF STUDENTS (TEAM MEMBERS)</b>					
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<b>DETAILS OF ADDITIONAL FACULTY MEMBER</b>					
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### **Brief details of the activities performed during the Study Tour:**

We are fortunate and pleased to be the final batch to visit the inner core salient features of the **ATAL-TUNNEL** along with BRO officials and the technical team. We gathered a quantum of knowledge and experiences during our visit in constructing such a Mega Structural Project for Our India. We feel proud to be chosen and granted by **AICTE** for this study tour under the **YUVAK** scheme. We came to know about the construction methodology, processes, and obstacles faced in completing the project during the briefing session.

**ATAL TUNNEL** (also known as **Rohtang Tunnel**) is a highway tunnel built under the Rohtang Pass in the eastern Pir Panjal Range of the Himalayas on the Leh-Manali Highway Himachal Pradesh, India. A total of 9.02 km, it is the longest highway single-tube tunnel for all-whether conditions. The tunnel is at an elevation of 3,100 m (10,171 ft), whereas the Rohtang Pass is at 3,978 m (13,051 ft). It was inaugurated by Prime Minister Narendra Modi on 3<sup>rd</sup> October 2020. The entire project cost is ₹3,200 crores, named after former Prime Minister of India, Atal Bihari Vajpayee.

The tunnel was built using the New Austrian Tunneling Method (NATM) and drill-blast technique. The length of the tunnel is 9.02 km with a horseshoe-shaped cross-section of finished-width 10.00 m. Designated vehicular speed: 80 km/h. The Geologic strata are uniformly dipping alternate sequences of quartzites, quartzitic schists, quartz-diolite-schist with thin bands. The maximum overburden is 1,900 m, with an average of more than 600 m (1,970 ft). Fibre-reinforced concrete (100–300 mm thick) is the lining provided to support the strata. It has been equipped with a semi-transverse ventilation system, where large fans separately circulate air throughout the tunnel. A 2.25 m tall and 3.6 m wide emergency tunnel has been integrated into the tunnel cross-section beneath the main carriageway for emergency evacuation. Fires inside the tunnel will be controlled within 200 m, and fire hydrants are provided at specific locations. The tunnel also has a public announcement system to make an important announcement in emergencies for which loudspeakers are installed at regular intervals. We value the knowledge and experiences gained in our study tour.

### **Suggestions/ Feedback:**

We, the Faculty, Students and Management of BMS Institute of Technology and Management Bengaluru, are immensely privileged for providing the opportunity in visiting ATAL-TUNNEL under the AICTE-YUVAK scheme. The construction of ATAL-TUNNEL is indeed an Engineering Marvel, unique of its kind and pride to Our Nation. We will cherish forever all the memories and experiences gathered during the trip. The study trip has inspired young minds to think in higher-order and build on larger career projects. Our special thanks to the BRO officials Lt. Colonel. Sunny and Mr. Pramod for their support. Our wholehearted thanks to Mr. Aravind and Mr. Saravanan for their brief explanation about the construction and maintenance of the ATAL-TUNNEL project during the study tour. We further look forward to such like good Engineering Study Tours, in actively participating and getting educated that will be helpful for us throughout our entire life. I take immense pleasure in thanking AICTE for providing students with such a high level of exposure in studies. I wish to express my wholehearted gratitude to Our Institutions' Management, Principal, Dean of Research and External Relations, Head of the Departments, Faculty and Students of Civil and Mechanical Engineering. I also thank all those who have helped us organise and ensure that we had a safe and comfortable trip.



**Place: Bengaluru- 560 064**

**Date: 23.02.2022**

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TEAM LEADER  
ASSISTANT PROFESSOR OF CIVIL ENGINEERING,  
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UNDER  
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**CIVIL ENGINEERING & MECHANICAL ENGINEERING**

*By-  
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**BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT BENGALURU 560 064**

Autonomous Institute affiliated to VTU, Belagavi, Approved by AICTE, New Delhi,  
Accredited by NAAC with 'A' Grade and accredited by NBA

Institution ID: 1-4152591



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# Team # 12

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## FACULTY

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**Mrs. Shobha R**

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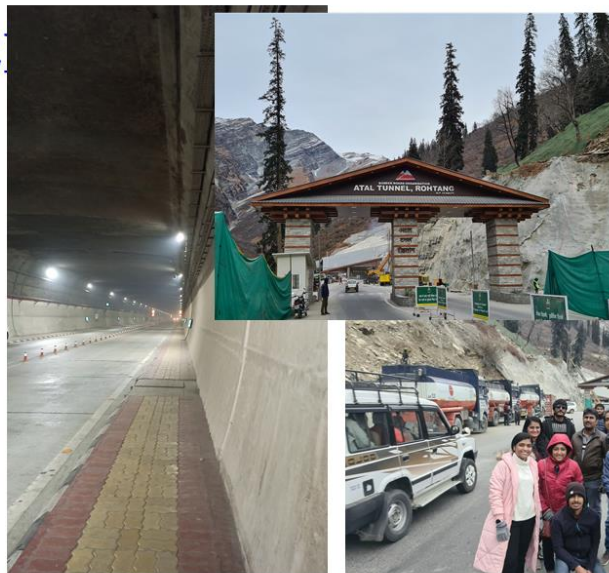
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# ATAL-TUNNEL



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# ATAL-Tunnel-Tour



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# Security & Safety



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# Security & Safety in the ingress tunnel



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# ATAL-TUNNEL-North Portal



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